

### REMARKS

In view of the above amendments and the following remarks, Applicant requests favorable reconsideration and allowance of the above-identified application.

Claims 1-3, 6, 8, and 9 are now pending in this application, with Claims 1, 8, and 9 being independent. By this Amendment, Applicant has amended Claims 1, 8, and 9.

Claim 9 stands rejected under 35 U.S.C. § 102 as being anticipated by Japanese Laid-Open Patent Application No. 10-274705 (Hiroshi, et al.). Claims 1-3, 6, and 8 stand provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over Claims 1, 2, 6, 7, 13, 22-26, 31, 32, and 64-68 of U.S. Patent No. 6,731,431 (Sekine) in view of Hiroshi, et al. Applicant traverses these rejections.

As recited in independent Claim 1, Applicant's invention is directed to a diffractive optical element having a first diffractive optical part having a phase-type diffractive grating and a second diffractive optical part having a phase-type diffractive grating formed of a material different from that of the first diffractive optical part. Each of the first and second diffractive optical parts includes a mark for aligning them. The depth or height of the mark is 10% or less of the depth or height of the diffractive grating of each of the first and second diffractive optical parts.

As recited in independent Claim 8, Applicant's invention is directed to a method of manufacturing a diffractive optical element. That claims recites features generally similar to those discussed above with respect to independent Claim 1.

As recited in independent Claim 9, Applicant's invention is directed to a metal mold for manufacturing a diffractive optical part. The mold includes a first area for molding a phase-type diffractive grating and a second area for molding a mark for aligning the diffractive grating with another member. The depth or height of the second area for molding the mark is 10% or less of the depth or height of the first area for molding the diffractive grating.

The Office Action cites Hiroshi, et al. as describing a mold for manufacturing a diffractive grating. The Office Action states that the mold includes an area for forming a mark (portion 4a in Figure 6) having a depth/height less than 10% of the depth/height of an area for forming a grating portion. Applicant submits, however, that Hiroshi, et al. merely describes that the area of the projection 4a is not greater than 10% of an area of a first zone of the diffractive grating. As concerns the comparison to the actual diffractive grating, the height of the projection portion 4a is about 0.2  $\mu\text{m}$ , which is about 20% of the height of the diffractive grating (about 1  $\mu\text{m}$ , as described in paragraph [0027] of Hiroshi, et al.). For the Examiner's convenience, and to support this position, Applicant has obtained and encloses herewith an English translation of Hiroshi, et al., which was obtained from a computer translation program in the Japanese Patent Office.

The Office Action acknowledges that Sekine does not describe or suggest that a depth/height of a mark is 10% or less of the depth/height of a diffractive grating.

Accordingly, Applicant submits that Hiroshi, et al. and Sekine, when taken alone or in combination, fail to disclose or suggest at least the feature of a depth or height of a mark being 10% or less of the depth or height of a diffractive grating of each of first

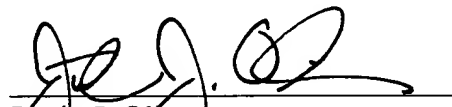
and second diffractive optical parts, as recited in independent Claims 1 and 8; and the depth or height of a second area for molding a mark being 10% or less of the depth or height of a first area for molding a diffractive grating, as recited in independent Claim 9.

For the foregoing reasons, Applicant submits that the independent claims are allowable over the applied documents, and requests withdrawal of the rejections under 35 U.S.C. §§ 102 and 103.

The remaining claims in the present application are dependent claims which depend from the independent claims, and thus are patentable over the applied documents for reasons noted above with respect to those claims. In addition, each recites features of the invention still further distinguishing it from the applied patents. Applicant requests favorable and independent consideration thereof.

Applicant's undersigned attorney may be reached in our Washington, D.C. office by telephone at (202) 530-1010. All correspondence should continue to be directed to our below-listed address.

Respectfully submitted,

  
Justin J. Oliver  
Attorney for Applicant  
Registration No. 44,986

FITZPATRICK, CELLA, HARPER & SCINTO  
30 Rockefeller Plaza  
New York, New York 10112-3801  
Facsimile: (212) 218-2200

JJO/tmm

DC\_MAIN 190729v1